

Patent claims

1. A component, in particular a turbine blade or
vane, which is intended to be partially coated and has
5 a masking layer on parts of the component which are not
to be coated,
characterized in that

the masking layer (25) reacts with material (22) of
10 layers (19) which are to be applied to the component
(1) and can readily be removed again on account of the
reaction between this material (22) and material of the
masking layer (25), and
in that the masking layer (25) forms a water-soluble
15 layer with the material (22) of layers (19) which are
to be applied to the component (1).

2. A component, in particular a turbine blade or
vane, which is intended to be partially coated and has
20 a masking layer on parts of the component which are not
to be coated,
characterized in that

the masking layer (25) reacts with material (22) of
25 layers (19) which are to be applied to the component
(1) and can readily be removed again on account of the
reaction between this material (22) and material of the
masking layer (25), and
in that the masking layer (25) forms a ceramic layer or
30 a precursor to a ceramic layer (43) with the material
(22) of layers (19) which are to be applied to the
component (1).

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3. A component, in particular a turbine blade or vane, which is intended to be partially coated and has a masking layer on parts of the component which are not to be coated,
5 characterized in that

the masking layer (25) reacts with material (22) of layers (19) which are to be applied to the component (1) and can readily be removed again on account of the
10 reaction between this material (22) and material of the masking layer (25), and
in that a first functional layer (28) is applied to a base material (40) of the component (1) as part of the masking layer (25), this functional layer allowing good
15 bonding to the base material of the component (1),
in that a gradient layer (31) which allows dense and crack-free coating of the masking layer (25) is applied to the first functional layer (28), and
in that a reactive layer (34) is applied to the
20 gradient layer (31).

4. The component as claimed in claim 1 or 3,
characterized in that
25 the masking layer (25) forms a ceramic layer or a precursor to a ceramic layer (43) with the material (22) of layers (19) which are to be applied to the component (1).

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5. The component as claimed in claim 1 or 2,
characterized in that

the masking layer (25) forms a water-soluble layer with
5 the material (22) of layers (19) which are to be
applied to the component (1).

6. The component as claimed in claim 1 or 2,
characterized in that

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a first functional layer (28), as part of the masking
layer (25), is applied to a base material (40) of the
component (1), this functional layer allowing good
bonding to the base material of the component (1).

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7. The component as claimed in claim 3 or 6,
characterized in that

the first functional layer (28) consists of
20 carbosilane.

8. The component as claimed in claim 6,
characterized in that

25 a gradient layer (31) which allows dense and crack-free
coating of the masking layer (25) is applied to the
first functional layer (28).

9. The component as claimed in claim 3 or 8,
30 characterized in that

the gradient layer (31) is a mixture of polysiloxane,
metal and/or a metal-ceramic.

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10. The component as claimed in claim 3, 8 or 9, in
which a filler is added to the gradient layer (31) in
order to prevent thermomechanical stresses in the
masking layer (25) or between the masking layer (25)
5 and a substrate (40) of the component (1) as a result
of different coefficients of thermal expansion.

11. The component as claimed in claim 1, 2 or 3,
characterized in that
10 the masking layer (25) at least in part contains
carbon, in particular at its outer surface.

12. The component as claimed in claim 1, 2 or 3,
15 characterized in that

the masking layer (25) is a gradient layer.